



Technology Solutions

Enabling SMART infrastructure

**Assisting clients and
technology partners
in the creation of safe,
secure and efficient
transport systems**

erh.co.uk

Innovative technology solutions pioneered and developed through strategic collaboration.

By working collaboratively with stakeholders, to ensure we provide maximum value, we deliver seamless, integrated, cost effective and sustainable solutions; through alternative methods of working and/or use of systems and equipment. Our qualified and experienced teams have been installing, commissioning and maintaining technology assets across strategic road networks for over 25 years. We work with local and central government, technology providers (e.g. CA Traffic, Christie, Cleartone, Jenoptik, Rennicks, Schneider, Electric, Messagemaker and VMS) and Police Forces (e.g. Thames Valley, Dyfed Powys, South Wales, North Wales, Gwent and Hampshire).

Utilising the in-house skills of our highly-experienced teams, ERH has pioneered technologies such as fibre acoustic equipment through trial, approval and implementation stages.

We actively research and provide a broad range of innovative roadside technology solutions which encompasses all surveys, supply, installation, testing, commissioning and maintenance activities. Through sister company Centregreat, we can also undertake associated civil engineering work and provide accredited traffic management services.

Solutions & Services

Solutions:

- Fixed and temporary ANPR systems;
- CCTV;
- Enforcement including Average Speed (ASE);
- Variable Message (VMS) and Vehicle Actuated (VAS) Signs including School Safety Schemes;
- Non-intrusive detection;
- Intelligent public lighting;
- Traffic signals;
- Emergency Roadside Telephones (ERT);
- SMART Motorway equipment such as MIDAS;
- Count & classification equipment;
- Communication networks;
- Power & communications cabinets;
- Meteorological equipment including Air Quality Monitoring;
- Smart portable CCTV solutions for roadwork schemes (not requiring constant monitoring);
- Command & control room set up and support.

Services:

- Supply, install & commission;
- Maintenance including on-call & emergency response;
- Rapid deployment;
- Project management;
- Contract management;
- Design support & advice (supplier neutral);
- Asset management;
- Specialist HSE advice;
- Provision of ad-hoc additional operational resource (roadside & control room).



Project examples

Brynglas Tunnel – Emergency Response

A strong example of our ability to respond to an emergency, and our sensitivity to the impact of our works (no matter what the circumstances) on road users, is the Brynglas Tunnels road traffic incident where a lorry caught fire inside the westbound bore during the morning rush hour. We recognise that this strategic route has a major impact on the wider network whenever there are incidents. This incident destroyed the longitudinal cabling infrastructure, preventing remote communication and management of roadside ITS assets from Brynglas Tunnel to the Severn Bridges.

Our proactive involvement in accessing the Welsh Government cable infrastructure and implementing remedial activities enabled the successful and safe installation of a replacement longitudinal cable through the tunnel and the restoration of the ITS assets, including CCTV, ERTs and Message Signs. Our collaborative approach with all stakeholders resulted in a minimum number of tunnel closures being required, which in turn limited the disruption to the travelling public and the wider social and economic impact.

Major Events (Ryder Cup, NATO, G8 Summit, 2012 Olympics, UEFA Champions League)

ERH is well versed in the need to provide extra resources at critical times, whether this is unplanned due to an incident or pre-planned around major events. We have provided additional services during a number of events such as the Ryder Cup where we installed mobile CCTV masts, accompanied the police on a security sweep, provided extra staff on call out; and placed staff within the traffic management centre 18 hrs per day.

We provided similar services for NATO, G8 Summit, 2012 Olympics, and the 2017 UEFA Champions League where we had additional cover for call outs across the assets. We even supported the latest Royal Wedding in Windsor. We provided similar services for NATO, G8 Summit, 2012 Olympics, and the 2017 UEFA Champions League where we had additional cover for call outs across the assets. We even supported the latest Royal Wedding in Windsor.

South Wales Traffic Management Centre Videowall Upgrade

ERH proposed that the then current Barco screens (using conventional lamp technology to illuminate the display) had a limited service life and limited long-term supportability. In particular, the SWTMC video wall that was installed in 2004 and only had guaranteed support until 2014, in line with Barco's 10-year equipment lifetime policy.

A backlighting system based on LED technology was proposed as this offered not only an extended lifetime but better performance compared with lamps. Under the Welsh Government Ancillary Works Contract, ERH upgraded the SWTMC video wall by seamlessly retro-fitting the LED solution to the existing video walls, providing reduced down time due to lamp failures, lower overall lifecycle costs (maintenance) and a decrease in power consumption. The cost to implement the LED upgrade and provide support for the life of this contract was consistent with the premium care maintenance support for the then current system, in addition the LED upgrade reset the Barco 10-year support policy to zero, reducing the risk of asset obsolescence.

A465 Section 2 & 3 – Gilwern to Brynmawr/Brynmawr to Clydach

A regional traffic study in 1990 identified the need to improve the A465, defining it as critical to the social and economic regeneration of the Heads of the Valleys area. Accidents on this stretch were concentrated around junctions and areas with poor visibility.

Under the Ancillary Works Framework (Welsh Government), ERH provided the installation, cabling, testing and commissioning of CCTV cameras, Average Speed Enforcement (ASE) Cameras, Emergency Roadside Telephones (ERT), VMS, meteorological equipment and all associated cabinets.

We also provided the Traffic Management using our 'in-house' team. The improvements not only increase safety but also improve access to key services, jobs and markets supporting inward investment to areas such as the Ebbw Vale Enterprise Zone.

South & North Wales Trunk Roads CCTV Upgrade

Under the Ancillary Works Framework (Welsh Government), ERH upgraded the analogue CCTV to IP. The CCTV cameras are used to monitor the Trunk Roads and can be accessed by the public through the Traffic Wales website.

We supplied and installed the back-office system and the IP converters to enable the existing analogue cameras to be used, providing a cost saving to the client. Stakeholders included local authorities and emergency services. We also installed the core system in North Wales.

Safer routes for Schools

Many children are driven to school due to the perception that it is unsafe to walk; one of the concerns is high traffic speeds. This means more cars on school drop-offs and less children walking; resulting in increased traffic levels, congestion and pollution, low levels of exercise and adverse health effects on young people.

Late summer 2018, ERH installed and commissioned 20mph School Sign Schemes in Powys and Ceredigion, inclusive of Traffic Management, Project Management and the installation of new posts, columns and street signage to enable speed advice and enforcement for four Ceredigion Schools.



“...We have been impressed by their professionalism, they have worked very hard to get this project completed to schedule, proving themselves to be very efficient. There have been a few difficult sites along the way, but Clayton has quickly resolved these.

I would also like to thank Clayton for going out of his way to get additional supplies and faulty Ravens replaced from Cleartone, testament to his “can do” attitude!”

Thames Valley Police

“Overall, the ERH experience has been first rate. Engineers have a first-class knowledge of the system and its components. Reaction to faults has generally been above what would have been expected.”

Dyfed Powys Police

“Just a quick thankyou to everyone involved in sorting the paperwork last week and to Chris and his gang for their hard work over the weekend to get all of the sites installed, its much appreciated.”

Costain

“Many thanks to everyone at ERH for all their hard work on the AWFC this year.”

Welsh Government (Ancillary Works Framework)





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